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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	G10-D068H		
Plant ID No.:	045-00119		
Applicant:	Mingo Logan Coal Company		
Facility Name:	Cardinal Preparation Plant		
Location:	Sharples, Logan County, WV		
SIC Code:	1221 (Bituminous Coal & Lignite - Surface)		
NAICS Code:	212111 (Bituminous Coal and Lignite Surface Mining)		
Application Type:	Class II Administrative Update		
Received Date:	January 11, 2017		
Engineer Assigned:	Dan Roberts		
Fee Amount:	$300		
Date Received:	January 11, 2017		
Applicant's Ad Date:	January 12, 2017		
Newspaper:	*Logan Banner*		
Complete Date:	May 14, 2015		
UTM Coordinates:	Easting: 429.7954 km	Northing: 4195.8321 km	NAD83 Zone 17N
Lat/Lon Coordinates:	Latitude: 37.907315	Longitude: -81.798611	NAD83
Description:	Modification to increase the maximum hourly throughput rate of reclaim belt conveyors BC-26 and BC-41 from 1,500 TPH to 6,000 TPH and BC-27 from 5,000 TPH to 6,000 TPH, which will affect transfer points TP52, TP53, TP54, TP55, TP56, TP57, TP58 and TP90. There will be no change in the currently permitted maximum annual throughput rates.		

BACKGROUND

Mingo Logan Coal Company owns and operates the existing Cardinal Preparation Plant under current general permit registration G10-D086H, which was approved on May 14, 2015.

Mingo Logan Coal Company has a lease agreement with Ark Land Company and the documentation is available at the Mingo Logan Engineering Office. Mingo Logan Coal Company is a subsidiary of Arch Coal, Inc.

DESCRIPTION OF PROCESS

Raw coal will be delivered to the raw coal processing portion of the facility by 7000tph underground mine slope belt conveyor BC-01(FE); open stockpile OS-15 or by truck to raw coal truck dump bins BS-01(PW) or BS-08 (PW). Belt conveyor BC-01 transfers at TP-02(TC-FE) to belt conveyor BC-02(PE), which transfers to open stockpile OS-01(SW-ST) @ TP-03(TC-FE) or onto belt conveyor BC-03(PE) @ TP-04(TC-FE). Belt conveyor BC-03 can discharge to open stockpile OS-02(SW-ST) @ TP-05(TC-FE) or transfer to belt conveyor BC-04(PE) @ TP-06(TC-FE) for transfer to open stockpile OS-03(SW-ST) @ TP-07(TC-FE). Belt conveyor BC-04 transfers to belt conveyor BC-05(PE) @ TP-08(TC-FE) for delivery to open stockpile OS-04(SW-ST) @ TP-09(TC-FE).

In April of 2013, Mingo Logan proposed to install a double chute with flop gates atop the stacking tube that controls load-in to OS-01 to divert raw coal into two additional stockpiles (OS-16 & OS-17) that will join stockpile OS-01. Water is available for dust control while this system is being used. Dozers work atop the existing stockpiles and creating a base for the new stockpile areas; therefore, since there will be an existing stockpile as a base to the new stockpiles, the drop height will be minimal. Material from belt BC-02 could transfer to stockpile OS-16 @ TP-105(TC-WS) and be reclaimed underpile to belt BC-10 @ TP-106(LO-UC) or material from belt BC-02 could transfer to stockpile OS-17 @ TP-107(TC-WS) and be reclaimed underpile to belt BC-10 @ TP-108(LO-UC).

Raw coal will be delivered by truck to BS-01(PW) @ TP-10(UD-PW); transfer to breaker CR-01(FW) @ TP-11(TC-FW); to belt BC-06(PE) @ TP-12(TC-FW) and to stacking tube OS-04(SW-WS) @ TP-13(TC-FE). Truck dump bin BS-01, breaker CR-01 and belt conveyor BC-06 were permitted in 2005, but have not yet been constructed as of 2017. Transfer points TP-14 through TP-19 were previously deleted.

In June of 2007, Mingo Logan proposed that raw coal delivered by truck, as previously permitted, will be dumped and dozer pushed into a 1500TPH Stamler feeder-breaker CR-04(FE) @ TP-77(UL-MDH) and transferred to the existing raw coal stockpile area by belt conveyor BC-37(NC) @ TP-78(TC-FE) and TP-79(TC-MDH).

Raw coal will be delivered by truck to bin BS-08(PW) @ TP-99(UD-PW), transfer to crusher CR-11(FW) @ TP-100(TC-FW); discharge to belt conveyor BC-45(PE) @ TP-101(TC-FE); and to the raw coal belt system @ TP-102(TC-FE). Even though the equipment is rated for 1,000 TPH, Mingo Logan proposes a throughput limit of 3,500,000 tons per truck dump facility. Truck dump bin BS-08, breaker CR-11 and belt conveyor BC-45 were permitted in 2011, but have not yet been constructed as of 2017.

Stockpile OS-15(SW-WS) is also proposed adjacent to the truck dump area. Coal will be received by truck @TP-103(UL-MDH) and transferred by front-end loader to BS-01(PW) @ TP-104(UD-PW).

Raw coal stockpiles OS-01, OS-02, OS-03 and OS-04 discharge to under-pile belt conveyor BC-10(FE) @ transfer points TP-20(LO-UC), TP-21(LO-UC), TP-22(LO-UC) and TP-23(LO-UC),

respectively. Belt conveyor BC-10 discharges to belt conveyor BC-11(PE) @ TP-24(TC-FE), which transfers to a 2,300 tph sizer CR-02(FW) @ TP-25(TC-FE), which transfers to belt conveyor BC-13(PE) @ TP-27(TC-FE). Belt conveyor BC-13 transfers the material to the preparation plant for processing @ TP-29(TC-WW).

Clean coal from the preparation plant transfers to belt conveyor BC-15(PE) @ TP-30(TC-WW) for delivery to the clean coal stockpiles OS-08(SW-ST), OS-09(SW-ST), OS-10(SW-ST) and OS-11(SW-ST) via a series of clean coal transfer belts BC-16(PE), BC-17(PE), and BC-18(PE) @ transfer points TP-31(TC-FE) through TP-37(TC-FE), respectively. Before exiting the plant, the separate clean coal circuits can send the oversize coal to separate primary crushers for sizing before it exits onto belt conveyor BC-15. These individual circuit crushers are identified as CR-07(FW), CR-08(FW), CR-09(FW) and addressed in the calculations section at TP-93(TC-FW), TP-94(TC-FW) and TP-95(TC-FW).

The trucked direct ship system consisting of bin BS-02, sizer CR-03 and belt conveyor BC-14 was permitted in 2005, but has not yet been constructed as of 2017. Direct ship or pit-cleaned coal is unloaded from truck to bin BS-02(FE) @ TP-38(UL-PE); bin BS-02 discharges to a 1,000 tph sizer CR-03(FE) @ TP-39(LO-UC) and onto belt conveyor BC-14(PE) @ TP-40(TC-FE). Belt conveyor BC-14 transfers to either clean coal stockpile OS-11 or onto belt conveyor BC-25(PE) for delivery to the remaining stockpile @ TP-41(TC-FE).

Clean direct ship coal will be delivered by truck, to OS-14(SW-WS) @ TP-80(UL-MDH) and transferred by front-end loader to a small top-fed bin BS-06(PW) @ TP-81(UD-PW). Bin BS-06 will transfer to new breaker CR-12 @ TP-109(TC-FE) and then onto BC-42(NC) @ TP-110(TC-FW), then to a fully-enclosed with water crusher CR-05(FW) @ TP-91(TC-FE). Crusher CR-05 will transfer to belt conveyor BC-43(NC) @ TP-83(TC-PW) and onto belt conveyor BC-38(NC) @ TP-92(TC-PE) for delivery to the existing clean coal stockpile area @ TP-84(TC-MDH).

Middlings from the plant are transferred out to the rewash plant on BC-19(PE) @ TP-42(TC-WW) and TP-43(TC-WW) and transfers to the middling stockpile OS-12(SW-ST) via a series of partially-enclosed belt conveyors BC-21(PE) thru BC-25(PE) @ TP-46(TC-WW) thru TP-51(TC-FE). Middling refuse is sent back to the refuse system via BC-20(PE) @ TP-44(TC-WW) and TP-45(TC-WW). Stockpile OS-12 discharges underpile to BC-26(PE) @ TP-52(LO-UC). Before the middlings coal exits the rewash plant, oversize can be sized through crusher CR-10(FW) and is addressed in the calculations section at TP-96(TC-FW).

Clean coal stockpiles OS-08(SW-ST), OS-09(SW-ST), OS-10(SW-ST) and OS-11(SW-ST) transfer to the underpile loadout belt system BC-27(FE) @ TP-53(LO-UC) through TP-56(LO-UC). Belt Conveyor BC-26 also transfers a new belt BC-41(PE) @ TP-90(TC-FE) which feeds belt BC-27 @ TP-57(LO-UC). Belt conveyor BC-27 transfers to belt conveyor BC-28(PE) @ TP-58(TC-FE), which discharges to the rail surge bin BS-03(FE) @ TP-59(TC-FE) and on to the loadout weigh bin BS-04(FE) @ TP-60(LO-UC). Bin BS-04 discharges to railcar @ TP-61(LO-TC).

In January of 2009, Mingo Logan proposed that clean coal will be delivered by truck on a paved haulroad to bin BS-07(PW), transfer to partially-enclosed belt conveyor BC-39(PE), transfer to a fully-enclosed w/water double roll crusher CR-06(FW), transfer to partially-enclosed belt

conveyor BC-40(PE) and then to existing stockpile OS-11 @ TP-85(UD-PW) thru TP-89(TC-FE). Truck dump bin BS-07, double roll crusher CR-06 and belt conveyors BC-39 and BC-40 were permitted in 2009, but have not yet been constructed as of 2017.

Refuse transfers from the plant to belt conveyor BC-29(PE) @ TP-62(TC-WW) and onto belt conveyors BC-30(PE) @ TP-64(TC-FE) and belt conveyor BC-31(PE) @ TP-68(TC-FE). Belt conveyor BC-30 discharges to open stockpile OS-13(SW-WS) @ TP-65(TC-PE) and to truck @ TP-66(LO-NC) for delivery to the refuse disposal area @ TP-67(UL-NC). Belt conveyor BC-31 transfers refuse to the disposal area via refuse conveyors BC-32(PE) thru BC-36(PE) @ TP-69(TC-FE) thru TP-76(TC-MDH). Refuse belt BC-35 will transfer to belt conveyor BC-44 @ TP-97(TC-FE) and to ground @ TP-98(TC-MDH). Belt conveyor BC-44 was permitted in 2011, but has not yet been constructed as of 2017.

MODIFICATION – JUNE, 2007

Temporary equipment is being proposed to allow for the receipt and processing of raw and clean coal delivered by truck to the facility prior to the permanent construction of the raw coal and direct ship truck dump systems.

Raw coal delivered by truck, as previously permitted, will be dumped and dozer pushed into a 1500TPH Stamler feeder-breaker CR-04(FE) @ TP-77(UL-MDH) and transferred to the existing raw coal stockpile area by belt conveyor BC-37(NC) @ TP-78(TC-FE) and TP-79(TC-MDH).

MODIFICATION – JANUARY, 2009

Clean coal will be delivered by truck on a paved haulroad to bin BS-07(PW), transfer to partially-enclosed belt conveyor BC-39(PE), transfer to a fully-enclosed w/water double roll crusher CR-06(FW), transfer to partially-enclosed belt conveyor BC-40(PE) and then to existing stockpile OS-11 @ TP-85(UD-PW) thru TP-89(TC-FE). Truck dump bin BS-07, double roll crusher CR-06 and belt conveyors BC-39 and BC-40 were permitted in 2009, but have not yet been constructed as of 2017.

CLASS II ADMINISTRATIVE UPDATE – NOVEMBER, 2009

Clean direct ship coal will be delivered by truck, as previously permitted, to OS-14(SW-WS) @ TP-80(UL-MDH) and transferred by front-end loader to a small top-fed bin BS-06(PW) @ TP-81(UD-PW). Two new belts have been added to the system and bin BS-06 will transfer to belt BC-42(NC) @ TP-82(TC-FE), then to a fully-enclosed with water crusher CR-05(FW) @ TP-91(TC-FE). Crusher CR-05 now becomes a secondary crusher and will transfer to belt conveyor BC-43(NC) @ TP-83(TC-PW) and onto belt conveyor BC-38(NC) @ TP-92(TC-PE) for delivery to the existing clean coal stockpile area @ TP-84(TC-MDH).

MODIFICATION - MARCH 2011

The following sections are included above and represent the changes that will take place at the Cardinal Facility:

The following sources have been deleted: belt BC-07, belt BC-08, belt BC-09, stockpile OS-05, stockpile OS-06, and stockpile OS-07.

Raw Coal:

Raw coal will be delivered by truck to BS-01(PW) @ TP-10(UD-PW); transfer to breaker CR-01(FW) @ TP-11(TC-FW); to belt BC-06(PE) @ TP-12(TC-FW) and to stacking tube OS-04(SW-WS) @ TP-13(TC-FE). Transfer points TP-14 through TP-19 have been deleted.

A new raw coal truck dump is proposed. Trucks will dump to bin BS-08(PW) @ TP-99(UD-PW), transfer to crusher CR-11(FW) @ TP-100(TC-FW); discharge to belt conveyor BC-45(PE) @ TP-101(TC-FE); and to the raw coal belt system @ TP-102(TC-FE). Even though the equipment is rated for 1,000 TPH, Mingo Logan proposes a throughput limit of 3,500,000 tons per truck dump facility.

Stockpile OS-15(SW-WS) is also proposed adjacent to the truck dump area. Coal will be received by truck @TP-103(UL-MDH) and transferred by front-end loader to BS-01(PW) @ TP-104(UD-PW).

Clean Coal:

Before exiting the plant, the separate clean coal circuits can send the oversize coal to separate primary crushers for sizing before it exits onto belt conveyor BC-15. These individual circuit crushers are identified as CR-07(FW), CR-08(FW), CR-09(FW) and addressed in the calculations section at TP-93(TC-FW), TP-94(TC-FW) and TP-95(TC-FW).

Before the middlings coal exists the rewash plant, oversize can be sized through crusher CR-10(FW) and is addressed in the calculations section at TP-96(TC-FW).

Refuse:

Refuse belt BC-35 will transfer to belt conveyor BC-44 @ TP-97(TC-FE) and to ground @ TP-98(TC-MDH). Belt conveyor BC-44 was permitted in 2011, but has not yet been constructed as of 2017.

MODIFICATION - APRIL 2013

Mingo Logan proposes to expand the raw coal and clean coal stockpiles areas to accommodate more material storage. The facility has plenty of room for storage and controls are in place to control fugitive emissions in the expanded areas.

Mingo Logan also proposes to install a double chute with flop gates atop the stacking tube that controls load-in to OS-01 to divert raw coal into two additional stockpiles (OS-16 & OS-17) that will join stockpile OS-01. Water is available for dust control while this system is being used. Dozers work atop the existing stockpiles and creating a base for the new stockpile areas; therefore,

since there will be an existing stockpile as a base to the new stockpiles, the drop height will be minimal. Material from belt BC-02 could transfer to stockpile OS-16 @ TP-105(TC-WS) and be reclaimed underpile to belt BC-10 @ TP-106(LO-UC) or material from belt BC-02 could transfer to stockpile OS-17 @ TP-107(TC-WS) and be reclaimed underpile to belt BC-10 @ TP-108(LO-UC).

MODIFICATION - MARCH 2015

Raw coal belt conveyor BC-12 was never constructed and is being deleted with this modification; increase the throughput rate for met or middlings plant from 100 TPH and 876,000 TPY to 400 TPH and 3,500,000 TPY; add breaker CR-12 to the clean coal direct ship system as modified in Administrative Update in 2009 which makes crusher CR-05 a secondary crusher.

CLASS II ADMINISTRATIVE UPDATE - JANUARY 2017

Modification to increase the maximum hourly throughput rate of reclaim belt conveyors BC-26 and BC-41 from 1,500 TPH to 6,000 TPH and BC-27 from 5,000 TPH to 6,000 TPH, which will affect transfer points TP52, TP53, TP54, TP55, TP56, TP57, TP58 and TP90. There will be no change in the currently permitted maximum annual throughput rates.

The facility shall be modified and operated in accordance with the following equipment and control device information taken from registration application G10-D068I and any amendments thereto:

Equipment ID No.	Date of Construction, Reconstruction or Modification [1]	G10-D Applicable Sections [2]	Emission Unit Description	Maximum Permitted Throughput		Control Device [3]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Device [3]
Deep Mined Raw Coal Circuit									
BC-01	C 2005	5 and 6	Mine Belt Conveyor - transfers raw coal from mine to BC-02	7,000	12,893,143	FE	B A	TP-01 TP-02	TC-FE TC-FE
BC-02	C 2005	5 and 6	Belt Conveyor - transfers raw coal from BC-01 to OS-01, OS-16, OS-17 or BC-03	7,000	12,893,143	PE	B A A A A	TP-02 TP-03 TP-105 TP-107 TP-04	TC-FE TC-FE TC-WS TC-WS TC-FE
OS-01	M 2014 * C 2005	5 and 8	Raw Coal Open Stockpile with stacking tube - maximum 150,000 tons capacity, 288,869 ft² base area, and 80' height - receives raw coal from BC-02 and has underground reclaim feeders to BC-10 (* 2014 - Increased from 75,000 tons to 150,000 tons capacity and from 115,540 ft² to 288,869 ft² base area)	7,000 in 2,300 out	12,893,143	WS-ST	B A	TP-03 TP-20	TC-FE LO-UC
OS-16	C 2014	5 and 8	Raw Coal Open Stockpile - maximum 50,000 tons capacity, 88,869 ft² base area, and 80' height - maximum receives raw coal from BC-02 via a chute and has underground reclaim feeders to BC-10	7,000	3,500,000	SW-WS	B A	TP-105 TP-106	TC-WS LO-UC
OS-17	C 2014	5 and 8	Raw Coal Open Stockpile - maximum 50,000 tons capacity, 88,869 ft² base area, and 80' height - maximum receives raw coal from BC-02 via a chute and has underground reclaim feeders to BC-10	7,000	3,500,000	SW-WS	B A	TP-107 TP-108	TC-WS LO-UC
BC-03	C 2005	5 and 6	Belt Conveyor - transfers raw coal from BC-02 to OS-02 or BC-04	7,000	12,893,143	PE	B A A	TP-04 TP-05 TP-06	TC-FE TC-FE TC-FE

Equip-ment ID No.	Date of Construction, Reconstruction or Modification [1]	G10-D Applicable Sections [2]	Emission Unit Description	Maximum Permitted Throughput		Control Device [3]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Device [3]
OS-02	M 2014 * C 2005	5 and 8	Raw Coal Open Stockpile with stacking tube - maximum 150,000 tons capacity, 288,869 ft² base area, and 80' height - receives raw coal from BC-03 and has underground reclaim feeders to BC-10 (* 2014 - Increased from 75,000 tons to 150,000 tons capacity and from 115,540 ft² to 288,869 ft² base area)	7,000 in 2,300 out	12,893,143	WS-ST	B A	TP-05 TP-21	TC-FE LO-UC
BC-04	C 2005	5 and 6	Belt Conveyor - transfers raw coal from BC-03 to OS-03 or BC-05	7,000	12,893,143	PE	B A A	TP-06 TP-07 TP-08	TC-FE TC-FE TC-FE
OS-03	M 2014 * C 2005	5 and 8	Raw Coal Open Stockpile with stacking tube - maximum 150,000 tons capacity, 288,869 ft² base area, and 80' height - receives raw coal from BC-04 and has underground reclaim feeders to BC-10 (* 2014 - Increased from 75,000 tons to 150,000 tons capacity and from 115,540 ft² to 288,869 ft² base area)	7,000 in 2,300 out	12,893,143	WS-ST	B A	TP-07 TP-22	TC-FE LO-UC
BC-05	C 2005	5 and 6	Belt Conveyor - transfers raw coal from BC-04 to OS-04	7,000	12,893,143	PE	B B A	TP-08 TP-102 TP-09	TC-FE TC-FE TC-FE
OS-04	M 2014 * C 2005	5 and 8	Raw Coal Open Stockpile with stacking tube - maximum 150,000 tons capacity, 288,869 ft² base area, and 80' height - receives raw coal from BC-05 and BC-06 and has underground reclaim feeders to BC-10 (* 2014 - Increased from 75,000 tons to 150,000 tons capacity and from 115,540 ft² to 288,869 ft² base area)	7,000 in 2,300 out	12,893,143	WS-ST	B B A	TP-09 TP-13 TP-23	TC-FE TC-FE LO-UC
BC-10	C 2005	5 and 6	Belt Conveyor - transfers raw coal from OS-01 through OS-04 (underground reclaim feeders) to BC-11	2,300	16,393,413	FE	B B B B A	TP-20 TP-21 TP-22 TP-23 TP-24	LO-UC LO-UC LO-UC LO-UC TC-FE
BC-11	C 2005	5 and 6	Belt Conveyor - transfers raw coal from BC-10 to CR-02	2,300	16,393,413	PE	B A	TP-24 TP-25	TC-FE TC-FE
CR-02	C 2005	5 and 6	Sizer - receives raw coal from BC-11, crushes it and drops to BC-13	2,300	16,393,143	FW	B A	TP-25 TP-27	TC-FE TC-FE
BC-13	C 2005	5 and 6	Belt Conveyor - transfers raw coal from CR-02 to the prep plant	2,300	16,393,413	PE	B A	TP-27 TP-29	TC-FE TC-WW
Trucked Raw Coal Circuit									
OS-15	Not Yet Constructed *	5 and 8	Raw Coal Open Stockpile - maximum 10,000 tons capacity, 18,869 ft² base area, and 45' height - receives raw coal from truck and transferred by front-end loader to bin BS-01 (* Permitted in 2005, but not yet constructed as of 2017)	400	3,500,000	SW-WS	B A	TP-103 TP-104	UL-MDH UD-PW
BS-01	Not Yet Constructed *	5 and 8	150 ton Truck Dump Bin - receives raw coal from trucks and drops to CR-01 (* Permitted in 2005, but not yet constructed as of 2017)	1,000	3,500,000	PW	B B A	TP-10 TP-104 TP-11	UD-PW UD-PW TC-FW
CR-01	Not Yet Constructed *	5 and 8	Hydraulic Rotary Breaker - receives raw coal from BS-01, crushes it and drops to BC-06 (* Permitted in 2005, but not yet constructed as of 2017)	1,000	3,500,000	FW	B A	TP-11 TP-12	TC-FW TC-FW
BC-06	Not Yet Constructed *	5 and 8	Belt Conveyor - transfers raw coal from CR-01 to open raw coal stockpile OS-04 (* Permitted in 2005, but not yet constructed as of 2017)	1,000	3,500,000	PE	B A	TP-12 TP-13	TC-FW TC-FE
BS-08	Not Yet Constructed *	5 and 8	150 ton Truck Dump Bin - receives raw coal from trucks and drops to CR-11 (* Permitted in 2011, but not yet constructed as of 2017)	1,000	3,500,000	PW	B A	TP-99 TP-100	UD-PW TC-FW
CR-11	Not Yet Constructed *	5 and 8	Hydraulic Rotary Breaker - receives raw coal from BS-08, crushes it and drops to BC-45 (* Permitted in 2011, but not yet constructed as of 2017)	1,000	3,500,000	FW	B A	TP-100 TP-101	TC-FW TC-FE
BC-45	Not Yet Constructed *	5 and 8	Belt Conveyor - transfers raw coal from CR-11 to BC-05 (* Permitted in 2011, but not yet constructed as of 2017)	1,000	3,500,000	PE	B A	TP-101 TP-102	TC-FE TC-FE
Portable Raw Coal Crusher									
CR-04	C 2007	5 and 6	Stamler Breaker - receives raw coal from trucks, crushes it and drops to BC-37	1,500	3,500,000	FE	B A	TP-77 TP-78	UL-MDH TC-FE
BC-37	C 2007	5 and 6	Belt Conveyor - transfers raw coal from CR-04 to existing raw coal stockpiles (see Deep Mined Raw Coal Circuit)	1,500	3,500,000	NC	B A	TP-78 TP-79	TC-FE TC-MDH
Clean Coal Circuit									

Equip-ment ID No.	Date of Construction, Reconstruction or Modification [1]	G10-D Applicable Sections [2]	Emission Unit Description	Maximum Permitted Throughput		Control Device [3]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Device [3]
CR-07	C 2005 *	5 and 6	McClanahan Primary Double Roll Sizing Crusher - located within the preparation plant, this crusher receives oversize coal from separate clean coal circuits for sizing prior to exiting on belt conveyor BC-15 (* Constructed in 2005, but not included in the permit until 2011)	250	2,190,000	FW	B A	TP-29 TP-93	TC-WW TC-FW
CR-08	C 2005 *	5 and 6	McClanahan Primary Double Roll Sizing Crusher - located within the preparation plant, this crusher receives oversize coal from separate clean coal circuits for sizing prior to exiting on belt conveyor BC-15 (* Constructed in 2005, but not included in the permit until 2011)	250	2,190,000	FW	B A	TP-29 TP-94	TC-WW TC-FW
CR-09	C 2005 *	5 and 6	McClanahan Primary Double Roll Sizing Crusher - located within the preparation plant, this crusher receives oversize coal from separate clean coal circuits for sizing prior to exiting on belt conveyor BC-15 (* Constructed in 2005, but not included in the permit until 2011)	250	2,190,000	FW	B A	TP-29 TP-95	TC-WW TC-FW
CR-10	C 2007 *	5 and 6	Gunlach Primary Double Roll Sizing Crusher - located within the preparation plant, this crusher receives oversize coal from separate clean coal circuits for sizing prior to exiting on belt conveyor BC-15 (* Constructed in 2005, but not included in the permit until 2011)	400	876,000	FW	B A	TP-29 TP-95	TC-WW TC-FW
BC-15	C 2005	5 and 6	Belt Conveyor - transfers clean coal from the prep plant to OS-08 or BC-16	1,500	9,016,229	PE	B A A	TP-30 TP-31 TP-32	TC-WW TC-FE TC-FE
OS-08	M 2014 * C 2005	5 and 8	75,000 ton Clean Coal Open Stockpile with stacking tube - maximum 100,000 tons capacity, 188,869 ft^2 base area, and 80' height - receives clean coal from BC-15 and has underground reclaim feeders to BC-27 (* 2014 - Increased from 75,000 tons to 100,000 tons capacity and from 115,540 ft^2 to 188,869 ft^2 base area)	1,500 in 6,000 out	12,516,229	WS-ST	B A	TP-31 TP-53	TC-FE LO-UC
BC-16	C 2005	5 and 6	Belt Conveyor - transfers clean coal from BC-15 to OS-09 or BC-17	1,500	9,016,229	PE	B A A	TP-32 TP-33 TP-34	TC-FE TC-FE TC-FE
OS-09	M 2014 * C 2005	5 and 8	Clean Coal Open Stockpile with stacking tube - maximum 100,000 tons capacity, 188,869 ft^2 base area, and 80' height - receives clean coal from BC-16 and has underground reclaim feeders to BC-27 (* 2014 - Increased from 75,000 tons to 100,000 tons capacity and from 115,540 ft^2 to 188,869 ft^2 base area)	1,500 in 6,000 out	12,516,229	WS-ST	B A	TP-33 TP-54	TC-FE LO-UC
BC-17	C 2005	5 and 6	Belt Conveyor - transfers clean coal from BC-16 to OS-10 or BC-18	1,500	9,016,229	PE	B A A	TP-34 TP-35 TP-36	TC-FE TC-FE TC-FE
OS-10	M 2014 * C 2005	5 and 8	Clean Coal Open Stockpile with stacking tube - maximum 100,000 tons capacity, 188,869 ft^2 base area, and 80' height - receives clean coal from BC-17 and has underground reclaim feeders to BC-27 (* 2014 - Increased from 75,000 tons to 100,000 tons capacity and from 115,540 ft^2 to 188,869 ft^2 base area)	1,500 in 6,000 out	12,516,229	WS-ST	B A	TP-35 TP-55	TC-FE LO-UC
BC-18	C 2005	5 and 6	Belt Conveyor - transfers clean coal from BC-17 to OS-11 or BC-25	1,500	9,016,229	PE	B A	TP-36 TP-37	TC-FE TC-FE
OS-11	M 2014 * C 2005	5 and 8	Clean Coal Open Stockpile with stacking tube - maximum 100,000 tons capacity, 188,869 ft^2 base area, and 80' height - receives clean coal from BC-18 and BC-14 (see Trucked Direct Ship Coal below) and has underground reclaim feeders to BC-27 (* 2014 - Increased from 75,000 tons to 100,000 tons capacity and from 115,540 ft^2 to 188,869 ft^2 base area)	2,500 in 6,000 out	12,516,229	WS-ST	B B A	TP-37 TP-41 TP-56	TC-FE TC-FE LO-UC
BC-27	M 2017 C 2005	5 and 8	Belt Conveyor - transfers clean coal from OS-08 through OS-11 (underground reclaim feeders) and BC-41 to BC-28	6,000	12,516,229	FE	B B B B B A	TP-53 TP-54 TP-55 TP-56 TP-90 TP-58	LO-UC LO-UC LO-UC LO-UC TC-FE TC-FE
BC-28	C 2005	5 and 6	Belt Conveyor - transfers clean coal from BC-27 to BS-03	6,000	12,516,229	FE	B A	TP-58 TP-59	TC-FE TC-FE

Equip-ment ID No.	Date of Construction, Reconstruction or Modification [1]	G10-D Applicable Sections [2]	Emission Unit Description	Maximum Permitted Throughput		Control Device [3]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Device [3]
BS-03	C 2005	5 and 6	300 ton Clean Coal Rail Surge Bin - receives clean coal from BC-28 and drops to BS-04	6,000	12,516,229	FE	B A	TP-59 TP-60	TC-FE LO-UC
BS-04	C 2005	5 and 6	125 ton Clean Coal Weigh Bin - receives clean coal from BS-03 and drops to railcars	6,000	12,516,229	FE	B A	TP-60 TP-61	LO-UC LO-UC
Clean Coal Middlings Circuit									
BC-19	M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal middlings from the prep plant to the clean coal middlings rewash plant	400	3,500,000	PE	B A	TP-42 TP-43	TC-WW TC-WW
BC-20	M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal middlings from the prep plant to the clean coal middlings rewash plant	400	3,500,000	PE	B A	TP-45 TP-44	TC-WW TC-WW
BC-21	M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal middlings from rewash plant to BC-22	400	3,500,000	PE	B A	TP-46 TP-47	TC-WW TC-FE
BC-22	M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal middlings from BC-21 to BC-23	400	3,500,000	PE	B A	TP-47 TP-48	TC-FE TC-FE
BC-23	M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal middlings from BC-22 to BC-24	400	3,500,000	PE	B A	TP-48 TP-49	TC-FE TC-FE
BC-24	M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal middlings from BC-23 to BC-25	400	3,500,000	PE	B A	TP-49 TP-50	TC-FE TC-FE
BC-25	M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal from BC-18 and BC-14 (see Trucked Direct Ship Coal below) to OS-12	400	3,500,000	PE	B B A	TP-41 TP-50 TP-51	TC-FE TC-FE TC-FE
OS-12	M 2015 ** M 2014 * C 2005	5 and 8	Clean Coal Open Stockpile with stacking tube - maximum 100,000 tons capacity, 188,869 ft² base area, and 80' height - receives clean coal from BC-25 and has underground reclaim feeders to BC-26 (* 2014 - Increased from 75,000 tons to 100,000 tons capacity and from 115,540 ft² to 188,869 ft² base area) (**2015 - increased the maximum annual throughput from 876,000 to 3,500,000 TPY)	400 in 6,000 out	3,500,000	WS-ST	B A	TP-51 TP-52	TC-FE LO-UC
BC-26	M 2017 M 2015 C 2005	5 and 8	Belt Conveyor - transfers clean coal from OS-12 to BC-41	6,000	3,500,000	PE	B A	TP-52 TP-57	LO-UC LO-UC
BC-41	M 2017 M 2015 C 2009 *	5 and 8	Belt Conveyor - transfers clean coal from BC-26 to BC-27 (* Permitted in registration G10-D068D approved on 1/11/10)	6,000	3,500,000	PE	B A	TP-57 TP-90	LO-UC TC-FE
Trucked Direct Ship Coal									
BS-02	Not Yet Constructed *	5 and 8	150 ton Truck Dump Bin - receives direct ship coal from trucks and drops to CR-03 (* Permitted in 2005, but not yet constructed as of 2017)	1,000	3,500,000	FE	B A	TP-38 TP-39	LO-PE LO-UC
CR-03	Not Yet Constructed *	5 and 8	Sizer - receives direct ship coal from BS-02, crushes it and drops to BC-14 (* Permitted in 2005, but not yet constructed as of 2017)	1,000	3,500,000	FE	B A	TP-39 TP-40	LO-UC TC-FE
BC-14	Not Yet Constructed *	5 and 8	Belt Conveyor - transfers direct ship coal from CR-03 to OS-11 or BC-25 (see Clean Coal Middlings Circuit above) (* Permitted in 2005, but not yet constructed as of 2017)	1,000	3,500,000	PE	B A	TP-40 TP-41	TC-FE TC-FE
Portable Clean Coal Crusher (G10-C068D)									
OS-14	C 2009 *	5 and 8	Direct Ship Open Stockpile - maximum 5,000 tons capacity, 8,869 ft² base area, and 35' height - receives direct ship coal from trucks and a front endloader transfers to BS-06 (* Constructed in 2009, but not included in the registration until 2010)	400	3,500,000	SW-WS	B A	TP-80 TP-81	UL-MDH UD-PW
BS-06	C 2007 *	5 and 6	30 Ton Direct Ship Feed Bin - receives direct ship coal from a front endloader and drops to CR-12 (* Constructed in 2009, but not included in the registration until 2010)	400	3,500,000	PW	B A	TP-81 TP-109	UD-PW TC-FE
CR-12	C 2015	5 and 8	Breaker - receives direct ship coal from BS-06, crushes it and then drops it onto BC-42	400	3,500,000	FW	B A	TP-109 TP-110	TC-FE TC-FW
BC-42	C 2009 *	5 and 8	Belt Conveyor - transfers direct ship clean coal from BS-06 to crusher CR-05 (* Constructed in 2009, but not included in the registration until 2010)	400	3,500,000	NC	B A	TP-110 TP-91	TC-FW TC-FE
CR-05	C 2007 *	5 and 6	Double Roll Crusher - receives direct ship coal from BC-42, crushes it and drops to BC-43 (* Constructed in 2007, but not included in the registration until 2010)	400	3,500,000	FW	B A	TP-91 TP-83	TC-FE TC-PW

Equip-ment ID No.	Date of Construction, Reconstruction or Modification [1]	G10-D Applicable Sections [2]	Emission Unit Description	Maximum Permitted Throughput		Control Device [3]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Device [3]
BC-43	C 2009 *	5 and 8	Belt Conveyor - transfers direct ship clean coal from crusher CR-05 to belt conveyor BC-38 (* Constructed in 2009, but not included in the registration until 2010)	400	3,500,000	NC	B A	TP-83 TP-92	TC-PW TC-PE
BC-38	C 2007 *	5 and 6	Belt Conveyor - transfers direct ship coal from BC-43 to existing clean coal stockpiles area (see OS-08 through OS-12 in the Clean Coal Circuit) (* Constructed in 2007, but not included in the registration until 2010)	400	3,500,000	NC	B A	TP-92 TP-84	TC-PE TC-MDH
Trucked Clean Coal Circuit (G10-C068C)									
BS-07	Not Yet Constructed *	5 and 8	200 ton Truck Dump Bin - receives clean coal from trucks and drops to BC-39 (* Permitted in 2009, but not yet constructed as of 2017)	1,000	8,760,000	PW	B A	TP-85 TP-86	UD-PE TC-FE
BC-39	Not Yet Constructed *	5 and 8	Belt Conveyor - transfers clean coal from BS-07 to CR-06 (* Permitted in 2009, but not yet constructed as of 2017)	1,000	8,760,000	PE	B A	TP-86 TP-87	TC-FE TC-FE
CR-06	Not Yet Constructed *	5 and 8	Double Roll Crusher - receives clean coal from BC-39, crushes it and drops to BC-40 (* Permitted in 2009, but not yet constructed as of 2017)	1,000	8,760,000	FW	B A	TP-87 TP-88	TC-FE TC-FE
BC-40	Not Yet Constructed *	5 and 8	Belt Conveyor - transfers clean coal from CR-06 to OS-11 (* Permitted in 2009, but not yet constructed as of 2017)	1,000	8,760,000	PE	B A	TP-88 TP-89	TC-FE TC-FE
Refuse Circuit									
BC-29	C 2005	5 and 6	Belt Conveyor - transfers refuse from prep plant to BC-30 or BC-31	1,500	7,376,914	PE	B A	TP-62 TP-63	TC-WW TC-PE
BS-05	C 2005	NA	100 ton Lime Storage Bin - drops lime onto refuse on BC-29	-----	20,000	FE	B A	NA NA	NA NA
BC-30	C 2005	5 and 6	Belt Conveyor - transfers refuse from BC-29 to OS-13 where an endloader transfers to trucks	1,500	1,000,000	PE	B A	TP-64 TP-65	TC-FE TC-MDH
OS-13	C 2005	5 and 6	Refuse Stockpile - - maximum 3,000 tons capacity, 4,869 ft² base area, and 30' height receives refuse from BC-30, refuse is transferred by endloader to trucks for transport to the refuse area	1,500 in 114 out	1,000,000	WS	B A A	TP-65 TP-66 TP-67	TC-MDH LO-NC UL-NC
BC-31	C 2005	5 and 6	Belt Conveyor - transfers refuse from BC-29 to BC-32 or BC-33	1,500	7,376,914	PE	B A A	TP-68 TP-69 TP-71	TC-FE TC-FE TC-FE
BC-32	C 2005	5 and 6	Belt Conveyor - transfers refuse from BC-31 to refuse area	1,500	7,376,914	PE	B A	TP-69 TP-70	TC-FE TC-MDH
BC-33	C 2005	5 and 6	Belt Conveyor - transfers refuse from BC-31 to BC-34 or BC-35	1,500	7,376,914	PE	B A A	TP-71 TP-72 TP-74	TC-FE TC-FE TC-FE
BC-34	C 2005	5 and 6	Belt Conveyor - transfers refuse from BC-33 to refuse area	1,500	7,376,914	PE	B A	TP-72 TP-73	TC-FE TC-MDH
BC-35	C 2005	5 and 6	Belt Conveyor - transfers refuse from BC-33 to BC-36 or BC-44	1,500	7,376,914	PE	B A A	TP-74 TP-75 TP-97	TC-FE TC-FE TC-FE
BC-36	C 2005	5 and 6	Belt Conveyor - transfers refuse from BC-35 to refuse area	1,500	7,376,914	PE	B A	TP-75 TP-76	TC-FE TC-MDH
BC-44	Not Yet Constructed *	5 and 8	Belt Conveyor - transfers refuse from BC-35 to refuse area (* Permitted in 2011, but not yet constructed as of 2017)	1,500	7,376,914	PE	B A	TP-97 TP-98	TC-FE TC-MDH

1 In accordance with 40 CFR 60 Subpart Y, coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified on or before April 28, 2008 shall not discharge gases which exhibit 20 percent opacity or greater. Coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified after April 28, 2008 shall not discharge gases which exhibit 10 percent opacity or greater. For open storage piles constructed, reconstructed, or modified after May 27, 2009, the permittee shall prepare and operate in accordance with a fugitive coal dust emissions control plan that is appropriate for site conditions.

2 All registered affected facilities under Class II General Permit G10-D are subject to Sections 1.0, 1.1, 2.0, 3.0 and 4.0.

3 Control Device Abbreviations: FE - Full Enclosure; FW - Full Enclosure with Water Sprays; PE - Partial Enclosure; PW - Partial Enclosure with Water Sprays; WS - Water Sprays; TC - Telescopic Chute; UC - Under-pile Conveyor; MDH - Minimize Drop Height; NC - No Control; and NA - Not Applicable.

DESCRIPTION OF FUGITIVE EMISSIONS (taken directly from the application)

Potential sources of fugitive particulate emissions for this facility include emissions, which are not captured by pollution control equipment and emissions from open storage piles and vehicular traffic on paved haulroads and unpaved work areas. Water sprays will control stockpile emissions. Fugitive coal dust emissions are addressed in the approved control plan.

All conveyor belts associated with the plant will be at least partially enclosed and the transfer points are fully enclosed.

An additive to prevent freezing will be utilized in the winter months when freezing conditions are present.

SITE INSPECTION

On May 19, 2016, Fred Teel of the DAQ's Compliance and Enforcement Section performed a full on-site targeted inspection of the facility. Mr. Teel did not enter any notes pertaining to the inspection. Mr. Teel did not find any violations at the time of the inspection and the facility was given a status code of 30 - In Compliance.

Directions from Charleston, WV are to take U.S. Route 119 South and travel 35.6 miles, turn left onto Laurel Creek Rd/County Hwy-20 and travel 4.8 miles, turn right onto State Route 17 South 6.6 miles to Sharples, WV, travel past the Sharples Post Office and proceed 2.5 miles to the entrance to Seng Camp Hollow Road located on the main road on the left at Seng Camp.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Fugitive emission calculations for continuous and batch drop operations, transfer points, crushing and screening, storage piles, and paved and unpaved haulroads are based on AP-42 Fifth Edition "Compilation of Air Pollution Emission Factors", Volume 1. Control efficiencies were applied based on "Calculation of Particulate Matter Emission - Coal Preparation Plants and Material Handling Operations." The emission factors for crushing/breaking and screening operations were obtained from the Air Pollution Engineering Manual - Air & Waste Management Association - June 1992. The calculations were performed by the applicant's consultant using the DAQ's G10-C Excel Emission Calculation Spreadsheet and were checked for accuracy and completeness by the writer. The writer performed the increase in emissions calculations using the DAQ's G10-C Excel Emission Calculation Spreadsheet and a copy has been attached.

The proposed modification will result in an increase in the facility's potential to discharge controlled particulate matter emissions of 4.13 pounds per hour (lb/hour) and zero tons per year (TPY) of particulate matter (PM), of which 1.95 lb/hour and zero TPY will be particulate matter less than 10 microns in diameter (PM_{10}). Refer to the following table for a complete summary of the proposed facility's potential to discharge:

- Increase in Emissions - **Mingo Logan Coal Company Cardinal Preparation Plant**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*0.00*	*0.00*	*0.00*	*0.00*
Point Source Emissions				
Equipment Emissions	0.00	0.00	0.00	0.00
Transfer Point Emissions	4.13	0.00	1.95	0.00
Point Source Emissions Total (PTE)	*4.13*	*0.00*	*1.95*	*0.00*
INCREASE IN EMISSIONS	**4.13**	**0.00**	**1.95**	**0.00**

The proposed modification will result in a new facility-wide potential to discharge controlled particulate matter emissions of 146.57 lb/hour and 477.38 TPY of particulate matter (PM), of which 51.10 lb/hour and 146.09 TPY will be particulate matter less than 10 microns in diameter (PM_{10}). Refer to the following table for a complete summary of the proposed facility's potential to discharge:

- New Facility-wide Emissions - **Mingo Logan Coal Company Cardinal Preparation Plant**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	2.95	12.91	1.39	6.07
Unpaved Haulroad Emissions	29.43	128.97	8.51	37.27
Paved Haulroad Emissions	45.61	199.80	8.85	38.77
Fugitive Emissions Total	*77.99*	*341.68*	*18.74*	*82.11*
Point Source Emissions				
Equipment Emissions	26.10	70.22	12.27	33.01
Transfer Point Emissions	42.48	65.48	20.09	30.97
Point Source Emissions Total (PTE)	*68.58*	*135.70*	*32.36*	*63.97*
FACILITY-WIDE EMISSIONS	**146.57**	**477.38**	**51.10**	**146.09**

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the modified facility. The modification of Mingo Logan Coal Company's existing wet wash coal preparation plant and railcar loadout is subject to the following state and federal rules:

45CSR5 *To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas*

The facility is subject to the requirements of 45CSR5 because it meets the definition of "Coal Preparation Plant" found in subsection 45CSR5.2.4. The facility should be in compliance with Section 3 (less than 20% opacity) and Section 6 (fugitive dust control system and dust control of the premises and access roads) when the particulate matter control methods and devices proposed are in operation.

45CSR13 *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation*

The proposed modification is subject to the requirements of 45CSR13 because it will result in an increase in emission less than six pounds per hour and 10 tons per year. The applicant has submitted an application for a Class II administrative update. The applicant published a Class I legal advertisement in *Logan Banner* on January 12, 2017 and submitted $300 for the Class II administrative update application fee.

45CSR16 *Standards of Performance for New Stationary Sources*
40 CFR 60 *Subpart Y: Standards of Performance for Coal Preparation and Processing Plants*

This facility is subject to 40 CFR 60 Subpart Y because it was constructed and modified after October 24, 1974 and processes more than 200 tons of coal per day. The proposed modification does not involve the construction of any equipment which are defined as affected facilities and subject to 40 CFR 60 Subpart Y. Therefore, the proposed modification is not subject to 45CSR16, which incorporates by reference 40 CFR 60 Subpart Y - Standards of Performance for Coal Preparation Plants. However, the existing equipment at the facility remains subject to 40 CFR 60 Subpart Y. The facility should be in compliance with Section 254(a) (less than 20% opacity for coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal which was constructed, re-constructed or modified on or before April 28, 2008) and Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal which was constructed, re-constructed or modified after April 28, 2008) when the particulate matter control methods and devices proposed are in operation.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of the new, reconstructed or modified open storage pile.

45CSR30 *Requirements for Operating Permits*

In accordance with 45CSR30 Major Source Determination, the facility is not listed in

45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions (open storage piles constructed or modified on or before May 27, 2009 and haulroads) when determining whether it is a major stationary source for the purposes of § 302(j) of the Clean Air Act. The facility's potential to emit will be 70.04 TPY for PM_{10} (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR30 threshold of 100 TPY of a regulated air pollutant used to define a major stationary source. Therefore, the facility remains a nonmajor source subject to 45CSR30. The facility is not subject to the permitting requirements of 45CSR30 and is classified as a deferred source.

The proposed modification of Mingo Logan Coal Company's existing wet wash coal preparation plant and railcar loadout is not subject to the following state and federal rules:

45CSR14 *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration*

In accordance with 45CSR14 Major Source Determination, the facility is not one of the 100 TPY stationary sources listed under the definition of "Major Stationary Source" in subsection 2.43.a. Therefore, it must have the potential to emit 250 TPY or more of any regulated pollutant to meet the definition of a major source in subsection 2.43.b. At the end of subsection 2.4.3, this facility is not listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. So, fugitive emissions (from open storage piles constructed or modified on or before May 27, 2009 and haulroads) are not included when determining major stationary source applicability. The facility's potential to emit will be 148.61 TPY for PM (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR14 threshold of 250 TPY for a regulated air pollutant used to define a major stationary source. Therefore, the proposed modification is not subject to the requirements set forth within 45CSR14.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the primary pollutants that will be emitted from this facility are PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter), which are non-toxic pollutants.

AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the size and location of this facility and the extent of the proposed modification. This facility is located in Logan County, WV, which is currently in attainment for PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter). This modified facility will remain a minor source as defined by 45CSR14, therefore, an air quality impact analysis is not required.

GENERAL PERMIT ELIGIBILITY

The proposed modification of this facility meets the applicability criteria (Section 2.3), siting criteria (Section 3.1) and limitations and standards (Section 5.1) as specified in General Permit G10-D.

All registered facilities under Class II General Permit G10-D are subject to Sections 1.0, 1.1, 2.0, 3.0 and 4.0.

MONITORING OF OPERATIONS

The coal processing and conveying equipment and storage areas should be observed to make sure that the facility is meeting the applicable visible emission standards of 40 CFR 60, Subpart Y. Visible emissions from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified after April 28, 2008 shall not exceed 10 percent (10%) opacity as stated in 40 CFR 60.254(b). Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the maximum 10% opacity limitation.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of the new, reconstructed or modified open storage pile.

RECOMMENDATION TO DIRECTOR

The information contained in this general permit registration application for a Class II administrative update indicates that compliance with all applicable regulations should be achieved when all of the proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. No comments were received during the comment period. Therefore, the granting of a General Permit G10-D registration to Mingo Logan Coal Company for the modification of their existing wet wash coal preparation plant and railcar loadout located near Sharples, Logan County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

February 13, 2017
Date

Increase in Emissions — 1/13/17 DPR

EMISSIONS SUMMARY

Name of applicant: Mingo Logan Coal Co.
Name of plant: Cardinal Prep Plant

Particulate Matter or PM (for 45CSR14 Major Source Determination)

	Uncontrolled PM		Controlled PM	
	lb/hr	TPY	lb/hr	TPY
FUGITIVE EMISSIONS				
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	**0.00**	**0.00**	**0.00**	**0.00**
POINT SOURCE EMISSIONS				
Equipment Emissions	0.00	0.00	0.00	0.00
Transfer Point Emissions	20.63	(0.00)	4.13	0.00
Point Source Emissions Total*	**20.63**	**(0.00)**	**4.13**	**0.00**
Facility Emissions Total	**20.63**	**(0.00)**	**4.13**	**0.00**

*Note: Point Source Total Controlled PM TPY emissions is used for 45CSR14 Major Source determination (see below)

***Facility Potential to Emit (PTE) (Baseline Emissions) =** **0.00**

(Based on Point Source Total controlled PM TPY emissions from above) **ENTER ON LINE 26 OF APPLICATION**

Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

	Uncontrolled PM-10		Controlled PM-10	
	lb/hr	TPY	lb/hr	TPY
FUGITIVE EMISSIONS				
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	**0.00**	**0.00**	**0.00**	**0.00**
POINT SOURCE EMISSIONS				
Equipment Emissions	0.00	0.00	0.00	0.00
Transfer Point Emissions	9.76	(0.00)	1.95	(0.00)
Point Source Emissions Total*	**9.76**	**(0.00)**	**1.95**	**(0.00)**
Facility Emissions Total	**9.76**	**(0.00)**	**1.95**	**(0.00)**

*Note: Point Source Total Controlled PM-10 TPY emissions is used for 45CSR30 Major Source determination

INPUTS

Include all information for each emission source and transfer point as listed in the permit application.

Name of applicant: Mingo Logan Coal Co.
Name of plant: Cardinal Prep Plant
January 2017 G10-D068I

1. CRUSHING AND SCREENING (including all primary and secondary crushers and screens)

1a. PRIMARY CRUSHING

Primary Crusher ID Number	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %

1b. SECONDARY AND TERTIARY CRUSHING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %

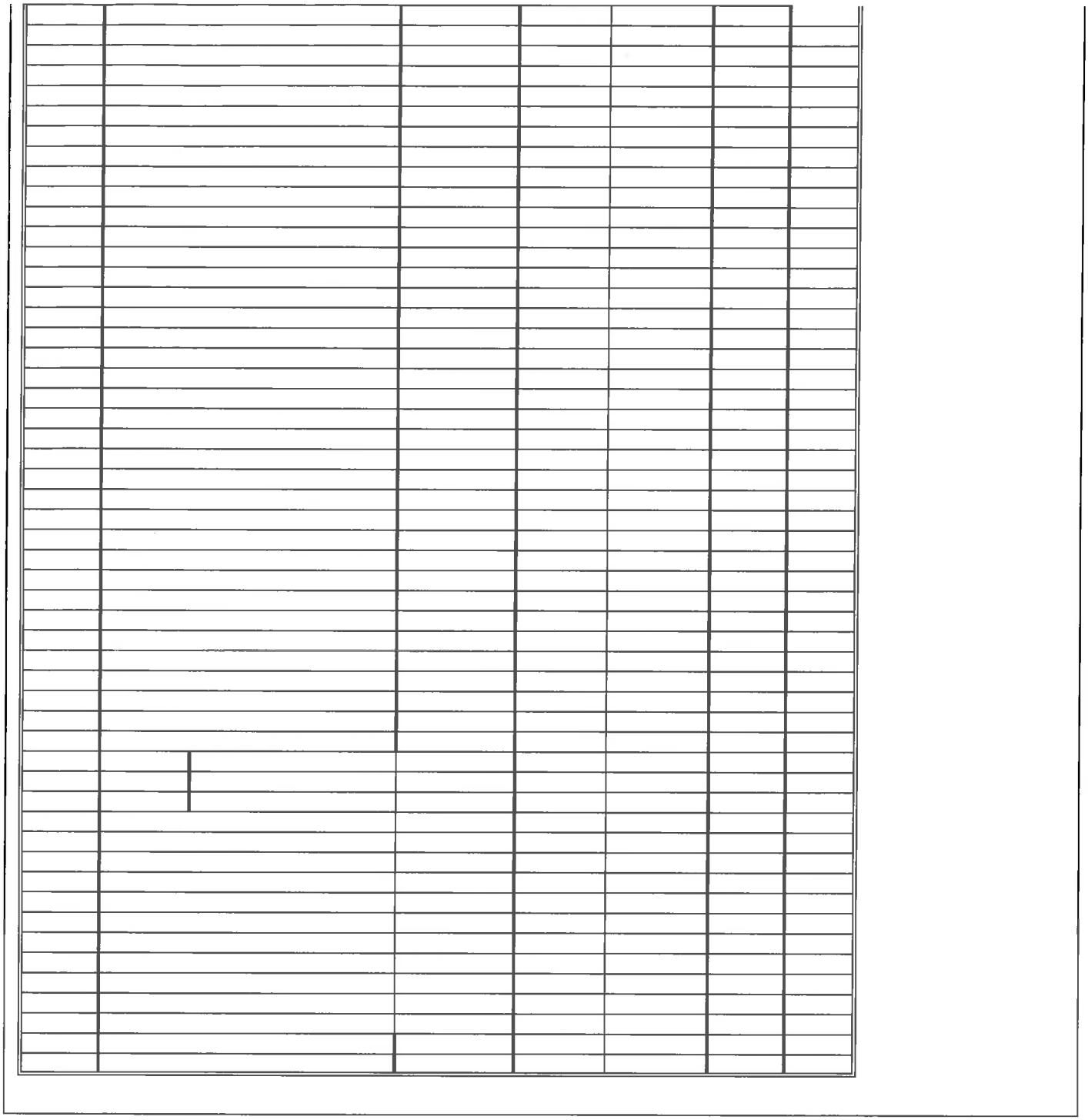
1c. SCREENING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %

2. *TRANSFER POINTS (including all conveyor transfer points, equipment transfer points etc.)*

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U =	Mean Wind Speed (mph)	7	

Transfer Point ID No.	Transfer Point Description Include ID Numbers of all conveyors, crushers, screens, stockpiles, etc. involved	Material Moisture Content %	Maximum Transfer Rate TPH	Maximum Transfer Rate TPY	Control Device ID Number	Control Efficiency %
	OLD TRANSFER POINTS					
TP52	OS-12 to Belt BC-26	7	(1,500)	(3,500,000)	LO-UC	80
TP53	OS-08 to Belt BC-27	7	(1,500)	(12,516,229)	LO-UC	80
TP54	OS-09 to Belt BC-27	7	(1,500)	(12,516,229)	LO-UC	80
TP55	OS-10 to Belt BC-27	7	(1,500)	(12,516,229)	LO-UC	80
TP56	OS-11 to Belt BC-27	7	(1,500)	(12,516,229)	LO-UC	80
TP57	Belt BC-26 to Belt BC-41	7	(1,500)	(3,500,000)	TC-FE	80
TP58	Belt BC-27 to Belt BC-28	7	(5,000)	(12,516,229)	TC-FE	80
TP90	Belt BC-41 to BC-27	7	(1,500)	(3,500,000)	TC-FE	80
	MODIFIED TRANSFER POINTS					
TP52	OS-12 to Belt BC-26	7	6,000	3,500,000	LO-UC	80
TP53	OS-08 to Belt BC-27	7	6,000	12,516,229	LO-UC	80
TP54	OS-09 to Belt BC-27	7	6,000	12,516,229	LO-UC	80
TP55	OS-10 to Belt BC-27	7	6,000	12,516,229	LO-UC	80
TP56	OS-11 to Belt BC-27	7	6,000	12,516,229	LO-UC	80
TP57	Belt BC-26 to Belt BC-41	7	6,000	3,500,000	TC-FE	80
TP58	Belt BC-27 to Belt BC-28	7	6,000	12,516,229	TC-FE	80
TP90	Belt BC-41 to BC-27	7	6,000	3,500,000	TC-FE	80



3. WIND EROSION OF STOCKPILES (including all stockpiles of raw coal, clean coal, coal refuse, etc.)

p =	number of days per year with precipitation >0.01 inch	157
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height	20

Source ID No.	Stockpile Description	Silt Content of Material %	Stockpile base area Max. sqft	Control Device ID Number	Control Efficiency %

4. UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

s =	silt content of road surface material (%)	9
p =	number of days per year with precipitation >0.01 inch	157
M_{dry} =	surface material moisture content (%) - dry conditions	0.2

Item Number	Description	Number of wheels	Mean Vehicle Weight(tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1									
2									
3									
4									
5									
6									
7									
8									

5. INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

sL =	road surface silt loading, (g/ft^2)	1
P =	number of days per year with precipitation >0.01 inch	157

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1							
2							
3							
4							
5							
6							
7							
8							